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10/763,985	01/23/2004	Chang-Hyun Lee	5000-1-507	8233

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EXAMINER	
KIM, DAVID S	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,985	LEE ET AL.	
	Examiner	Art Unit	
	David S. Kim	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Applicant's response to the objections to the drawings in the previous Office Action (mailed 24 January 2007) is noted and appreciated. Applicant responded by sending new drawings. The drawings were received on 23 April 2007. These drawings are approved, and the previous objections are withdrawn.

Claim Objections

2. Applicant's response to the objections to the claims in the previous Office Action (mailed 24 January 2007) is noted and appreciated. Applicant responded by canceling/amending the claims, which overcomes the previous objections.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 6-9, 11, 13, and 14** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Notice the following limitations in independent claim 6:

"a synchronous transport module (STM) unit for transmitting an ***optical*** signal;

a high-level data link control (HDLC) packet processing unit disposed inside the ONU, for receiving ***optical*** signals from the STM unit, the HDLC packet processing unit further including:

an multi-program transmission stream (MPTS) data receiver for receiving the ***optical*** signal from the STM unit, ***for converting the received optical signal into an electrical signal*** and outputting an HDLC packet" (emphasis Examiner's).

These limitations correspond Fig. 5. However, neither Fig. 5 nor the corresponding portion of the specification (p. 9, l. 8-18) discloses these instances of an ***optical*** signal or the converting by the MPTS

data receiver of a received ***optical*** signal into an electrical signal. Rather, the disclosure is silent about these signals being ***optical*** signals. As a remedy, Examiner respectfully suggests the removal of the term "optical" from these limitations and the removal of the "converting" step from the limitations above.

5. **Claims 8, 9, and 14** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Notice the following limitation in parent claim 8:

"a plurality of secondary memory units having assigned storage areas for each of the MPTS data and the plurality of subscribers, wherein the **storage areas are** assigned according to the MPTS data in the first memory and ***transmitted*** **to each of the plurality of subscribers based upon the MPTS data in the first memory**" (emphasis Examiner's).

These limitations correspond to Fig. 7 and p. 10, l. 8 – p. 11, l. 13 of the disclosure. Storage areas are not generally known to be *transmittable*. Rather, the MPTS data is transmittable. Furthermore, the disclosure does not support the transmission of storage areas. Accordingly, this limitation is not enabled. As a remedy, Examiner respectfully suggests amending the claim language so that the MPTS ***data*** is transmitted instead of the storage areas.

6. **Claims 10 and 11** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Notice the following limitation in claims 10 and 11:

"a HDLC packet of a size of 64 byte to 1024 byte ***of a ATM payload***" (emphasis Examiner's).

However, the size of an ATM payload is only 48 bytes (Applicant's specification, p. 3, l. 12-13). Also, although the specification suggests the use of ATM cells (Applicant's specification, p. 9, l. 3-5), the disclosure does not support the express usage of an HDLC packet of a size of 64 byte to 1024 byte ***of a***

ATM payload. Accordingly, claims 10 and 11 introduce new matter. As a remedy, Examiner respectfully suggests the simple removal of the phrase "of a ATM payload" from claims 10 and 11.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claims 4 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang (U.S. Patent No. 5,835,602) in view of the admitted prior art (hereinafter the "APA") and Amaral et al. (U.S. Patent No. 6,088,360, hereinafter "Amaral"), with reference to Weik (*Fiber Optics Standard Dictionary, 3rd ed.*).

Regarding claim 5, Lang discloses:

A transmission apparatus for use in an optical subscriber network having an optical line termination (OLT), the OLT further comprising:

a high-level data link control (HDLC) packet processing unit (3 in Fig. 1) disposed inside the OLT, the HDLC packet processing unit further including:

a data receiver for receiving data (data reception in col. 2, l. 43-44);

an HDLC generator for converting the data into an HDLC packet, wherein the HDLC packet is generated according to a HDLC protocol (HDLC packets generated by 3 in Fig. 1);

an synchronous transport module (STM) unit for receiving the HDLC packet received from the HDLC packet processing unit and converting the HDLC packet into an optical signal for transmission (5 in Fig. 1).

Lang does not expressly disclose:

the HDLC packet processing unit further including:

a ***multi-program transmission stream (MPTS)*** data receiver for receiving a ***MPTS*** data;

a buffer coupled to the MPTS receiver, for buffering the MPTS data received in the MPTS receiver;

an HDLC generator ***coupled to the buffer***, for retrieving ***MPTS*** data ***stored in the buffer***, for converting the ***MPTS*** data into an HDLC packet, wherein the HDLC packet is generated according to a HDLC protocol;

a control section controller for controlling the MPTS receiver, the buffer and the HDLC generator (emphasis Examiner's).

Regarding the MPTS data, the APA shows that such MPTS data is known and common in the art (APA, MPTS in Fig. 1). Usage of such data simply provides an obvious variation of Lang.

Regarding the buffer and the coupling of the HDLC generator to the buffer, the use of a buffer before a packet generator is an extremely well known and general technique in the art. Amaral provides an example of this general technique (buffer 40 in Fig. 1). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to employ this technique in the apparatus of Lang. One of ordinary skill in the art would have been motivated to do this since a buffer is generally known to provide the ability to properly coordinate the timing of the transfer of data between various devices (Weik,

"buffer", definition 3 on p. 83). Also, another motivation is to provide structural details for implementing the apparatus of Lang. That is, Lang is silent about the structural details of components that provide the data that is received by HDLC packet generator 3 in Fig. 1. The teachings of Amaral would speak into this silence with the example of its own structural details.

Regarding the control section, employing a control section for multiple components in an apparatus is an extremely well known practice. Amaral shows the general technique of providing a control section for multiple components (46 in Fig. 1). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to employ a control section for controlling the components of the apparatus of Lang. One of ordinary skill in the art would have been motivated to do this for the common purpose of properly coordinating operation of all of the components (Amaral, col. 3, l. 62-65), providing conventional functions such as synchronization of components, fault detection, fault recovery, configuration, and initialization.

Regarding claim 4, Lang in view of the references applied above to claim 5 (hereinafter the "RAA5") discloses:

The transmission apparatus as claimed in claim 5, wherein the transmission apparatus is used for image data (APA, image on p. 3, l. 8 of Applicant's specification).

10. **Claims 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang in view of the APA, Jahromi (U.S. Patent No. 5,416,768), and Frenzel ("Programmable Framer Chip Improves OC-48 Efficiency"), with reference to Weik and Newton (*Newton's Telecom Dictionary, 8th ed.*).

Regarding claim 6, Lang discloses:

A transmission apparatus for use in an optical subscriber network, having a plurality of optical network units (ONU), the ONU further comprising:

a synchronous transport module (STM) unit for transmitting a signal (SONET frame generator 13 in Fig. 1 is a synchronous transport module);

a high-level data link control (HDLC) packet processing unit (15 and 17 together in Fig. 1) disposed inside the ONU, for receiving signals from the STM unit, the HDLC packet processing unit further including:

a data receiver (e.g., 15 in Fig. 1) for receiving the signal from the STM unit, for outputting an HDLC packet;

a data extractor (e.g., 17 in Fig. 1) coupled to the data receiver, for receiving the HDLC packet from the data receiver, removing overhead from the HDLC packet and extracting data (extraction of the data is implied by 17 in Fig. 1).

Lang does not expressly disclose:

the synchronous transport module (STM) unit for transmitting an ***optical*** signal;

the high-level data link control (HDLC) packet processing unit disposed inside the ONU, for receiving ***optical*** signals from the STM unit;

a ***multi-program transmission stream (MPTS)*** data receiver for receiving the ***optical*** signal from the STM unit, for ***converting the received optical signal into an electrical signal***;

an ***MPTS*** data extractor coupled to the ***MPTS*** receiver, for receiving the HDLC packet from the MPTS data receiver, removing overhead from the HDLC packet and extracting MPTS data;

a ***buffer*** coupled to the ***MPTS*** data extractor, for buffering the extracted ***MPTS*** data;

a ***controller*** for controlling the ***MPTS*** receiver, the ***MPTS*** data extractor and the buffer; and

a ***switching unit*** for switching the ***MPTS*** data from the HDLC packet processing unit to a plurality of subscribers (emphasis Examiner's).

Regarding the MPTS data, the APA shows that such MPTS data is known and common in the art (APA, MPTS in Fig. 1). Usage of such data simply provides an obvious variation of Lang.

Regarding the optical signal and the converting of the received optical signal into an electrical signal, notice the SONET frame termination 13 stage in Fig. 1 of Lang. One of ordinary skill in the art would expect this stage to provide the functionality of converting an input optical signal into an output electrical signal. This is a general representation of SONET frame termination that can be performed in a

variety of ways. Suitable ways are shown in Jahromi (e.g., Figs. 8A, 8B, 13). These ways all input optical signal(s) and output electrical signal(s) from the level of an STM-16 optical signal to the level of terminal electrical signals. In this conversion process, there can be the transmission of an optical signal between internal components, as suggested by the intermediate STM-1 optical interfaces of Jahromi (col. 10, l. 31). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the SONET frame termination teachings of Jahromi in the SONET frame termination stage of Lang. One of ordinary skill in the art would have been motivated to do this to provide structural details for implementing the apparatus of Lang. That is, Lang is silent about the structural details of the SONET frame termination stage in Fig. 1. The teachings of Jahromi would speak into this silence with the examples of its own structural details.

Regarding the buffer, the use of a buffer after a data extractor is an extremely well known and general technique in the art. Frenzel provides an example of this general technique (Channel buffer after the RX HDLC engine in Fig. 2). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to employ this technique in the apparatus of Lang. One of ordinary skill in the art would have been motivated to do this since a buffer is generally known to provide the ability to properly coordinate the timing of the transfer of data between various devices (Weik, "buffer", definition 3 on p. 83). Also, another motivation is to provide structural details for implementing the apparatus of Lang. That is, Lang is silent about the structural details of components that receive the data that is extracted by HDLC packet terminator 17 in Fig. 1. The teachings of Frenzel would speak into this silence with the example of its own structural details.

Regarding the controller, employing a controller for multiple components in an apparatus is an extremely well known practice. Frenzel shows the general technique of providing a control section for multiple components (bus from the CPU Interface in Fig. 2). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to employ a control section for controlling the components of the apparatus of Lang. One of ordinary skill in the art would have been motivated to do this for the common purpose of properly coordinating operation of all of the components, providing

conventional functions such as synchronization of components, fault detection, fault recovery, configuration, and initialization.

Regarding the switching unit, such a switching unit is known and common in the art. Jahromi provides an example (central switches in Fig. 15). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide a switching unit, as exemplified by the switching unit teachings of Jahromi, for switching the MPTS data from the HDLC packet processing unit to a plurality of subscribers. One of ordinary skill in the art would have been motivated to do this since such a switching unit is generally known to provide control over how to appropriately direct various communications to end users/customers/subscribers (Newton, "switching" and "switching arrangement" on p. 991, "switching equipment" and "switching point" on p. 992). Otherwise, the end users/customers/subscribers might not receive their respective communication services properly.

Regarding claim 7, Lang in view of the references applied above to claim 6 (hereinafter the "RAA6") does not expressly disclose:

The transmission apparatus as claimed in claim 6, wherein the buffer continuously outputs the MPTS data.

However, the APA discloses that MPTS data is a transmission stream (Applicant's specification, p. 2, l. 22 – p. 3, l. 1). Such streams are often continuous, so an obvious variation of the apparatus of Lang in view of the RAA6 could reasonably include a continuous output from the buffer.

11. **Claims 8, 9, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang in view of the RAA6 as applied to the claims above, and further in view of Petty (U.S. Patent No. 4,965,796).

Regarding claim 8, Lang in view of the RAA6 does not expressly disclose:

The transmission apparatus as claimed in claim 6, wherein the switching unit includes:

a first memory for storing the MPTS data; and

a plurality of secondary memory units having assigned storage areas for each of the MPTS data and the plurality of subscribers, wherein the storage areas are assigned according to the MPTS data in the first memory and transmitted to each of the plurality of subscribers based upon the MPTS data in the first memory.

However, such switching units are known the art, as shown by Petty (Figs. 1 and 5, "first memory" 501 in Fig. 5, "secondary memory units" 502 in Fig. 5). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement such a switching unit in the apparatus of Pierson. One of ordinary skill in the art would have been motivated to do this since a switching unit of Petty provides advantages over other types of switching units that one may implement for the switching unit of Lang in view of the RAA6 (Jahromi, central switches in Fig. 15). For example, the teachings of Petty provide reduction of hardware-related costs and increased flexibility (Petty, col. 2, l. 23-50).

Regarding claim 9, Lang in view of the RAA6 and Petty discloses:

The transmission apparatus as claimed in claim 8, wherein the plurality of subscribers access the MPTS data based upon predetermined requirements of each subscriber (e.g., Petty, each terminal equipment 12 is assigned its own port 40).

Regarding claim 14, Lang in view of the RAA6 and Petty does not expressly disclose:

The transmission apparatus as claimed in claim 8, wherein the plurality of secondary memory units is configured for outputting or discarding first-inputted MPTS data according to a first-in first-out (FIFO) method.

However, FIFO is an extremely well known method for processing the contents of memory, as shown by Weik ("first in, first out" on p. 363). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to employ a FIFO method for the secondary memory units of Lang in view of the RAA6. One of ordinary skill in the art would have been motivated to do this to maintain the same order of data in which they arrived (Weik, "first in, first out" on p. 363). That is, data is sent in a particular order. Maintenance of that same order at the receiving end of a transmission link generally results in simple processing of that data. Otherwise, additional resources may be required for reordering the data according to a different method.

12. **Claims 10 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang in view of the RAA5 as applied to the claims above, and further in view of Shohet ("HDLC framing of Ethernet packet").

Regarding claim 10, Lang in view of the RAA5 does not expressly disclose:

The transmission apparatus as claimed in claim 5, wherein the HDLC protocol provides a HDLC packet having ***a size of 64 byte to 1024 byte of a ATM payload.***

Regarding the size of 64 byte to 1024 byte, the payload of an HDLC packet is variable, so any suitable range of packet sizes would be an obvious variation, including 64 bytes to 1024 bytes. Shohet provides an example of a range of the same order of size (p. 12, 64 bytes to 1522 bytes, calculated from 6 bytes being 9.375% for shortest packet to 0.3942% for longest packet).

Regarding the ATM payload, notice that HDLC is known to frame the datagrams of other protocols (Shohet, Ethernet packets framed by HDLC, title). Framing an ATM payload would provide another obvious variation.

Regarding claim 12, Lang in view of the RAA5 and Shohet does not expressly disclose:

The transmission apparatus as claimed claim 5, wherein the transmission apparatus provides for a payload transmission rate of 6:512.

However, notice that Shohet teaches an overhead size of 6 bytes and a packet size range of 64 bytes to 1522 bytes (p. 12, 64 bytes to 1522 bytes, calculated from 6 bytes being 9.375% for shortest packet to 0.3942% for longest packet). The range of these teachings includes the payload transmission rate of 6:512.

13. **Claims 11 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang in view of the RAA6 as applied to the claims above, and further in view of Shohet ("HDLC framing of Ethernet packet").

Regarding claims 11 and 13, claims 11 and 13 introduce limitations that correspond to the limitations introduced by claims 10 and 12, respectively. These limitations of claims 10 and 12 are addressed by the teachings of Shohet. Similarly, Shohet is applied here to address the corresponding limitations.

Response to Arguments

14. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments are based on the new limitations introduced to the independent claims by Applicant's most recent amendment (filed on 23 April 2007). The standing

rejections rely on new ground(s) of rejection in view of the teachings of the RAA5 and the RAA6. Accordingly, Applicant's arguments are moot.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vogel (U.S. Patent No. 6,075,788) is cited to show the transmission of HDLC packets over SONET/SDH (e.g., Fig. 6) and the use of the FIFO method (Fig. 3).

Business Wire ("Optical Communication Products Launches OC-48 Optical Transponder Product Family") is cited to show the multiplexing and demultiplexing of optical signals (4th paragraph).

Foisel et al. is ("Evaluation of IP over WDM Network Architectures") cited to show the framing of datagrams of other protocols by HDLC (p. 41-42, bridging paragraph).

Qasim et al. ("FPGA Implementation of a Single-Channel HDLC Layer-2 Protocol Transmitter using VHDL") is cited to show an HDLC transmitter (Fig. 2).

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N. Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSK

KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER

OIPE
APR 23 2007
PATENT & TRADEMARK OFFICE

REPLACEMENT SHEET

Approved by DSK
16 JULY 2007

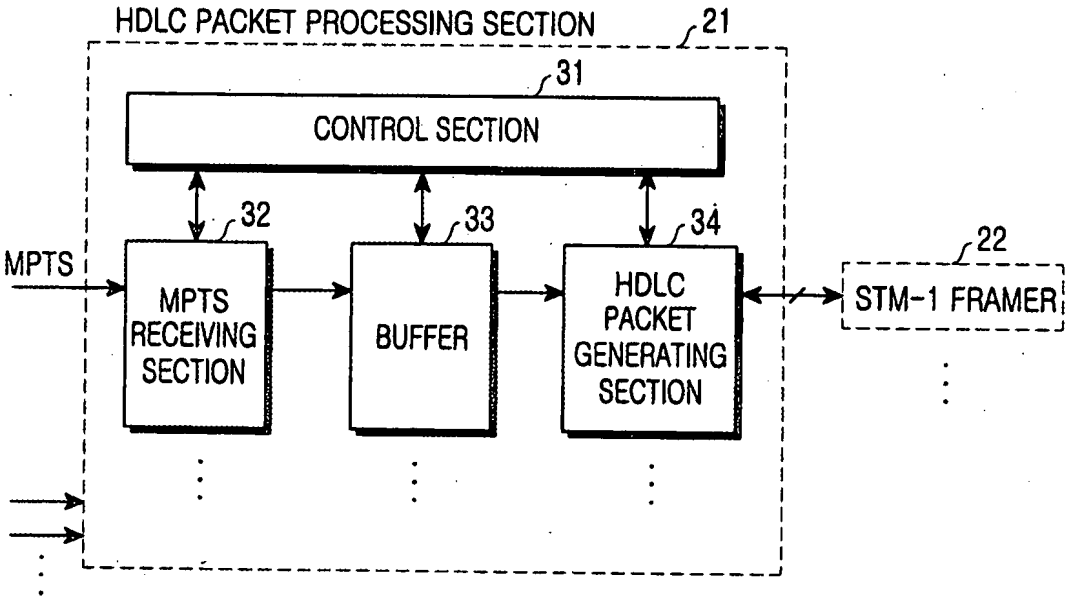

FIG.3

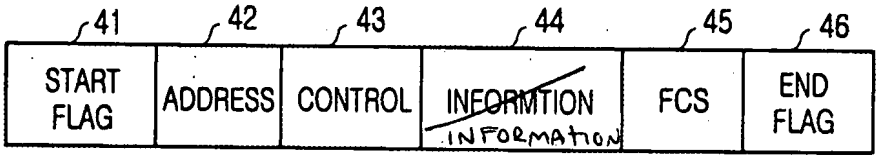

FIG.4

REPLACEMENT SHEET

Approved by DSK
16 JULY 2007

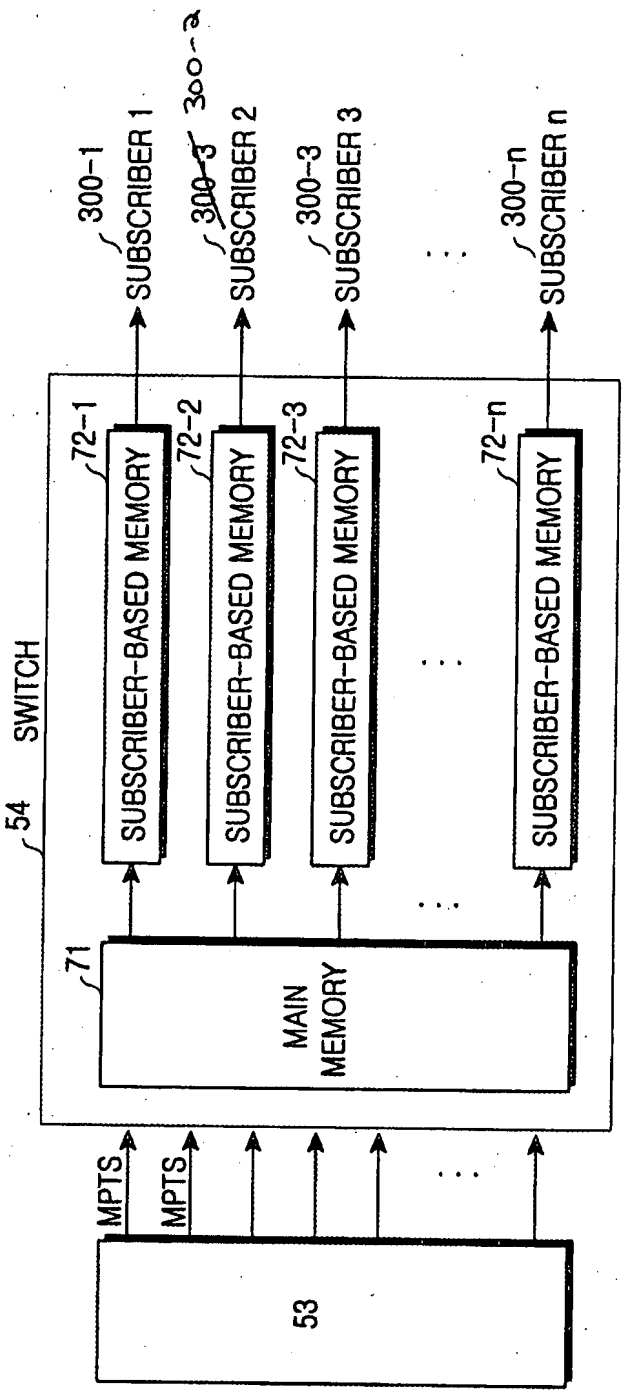

FIG.7